

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015770**Date Inspected:** 20-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

| | | | |
|------------------------------------|---------------|----|-----|
| CWI Name: | Mr. Huang min | | |
| Inspected CWI report: | Yes | No | N/A |
| Electrode to specification: | Yes | No | N/A |
| Qualified Welders: | Yes | No | N/A |
| Approved Drawings: | Yes | No | N/A |

| | | |
|----------------------------------|-----|----|
| CWI Present: | Yes | No |
| Rod Oven in Use: | Yes | No |
| Weld Procedures Followed: | Yes | No |
| Verified Joint Fit-up: | Yes | No |
| Approved WPS: | Yes | No |
| Delayed / Cancelled: | Yes | No |

Bridge No: 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY- 5

Signed off the following green tag.
1.13365.

BAY- 6

This QA Inspector Randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) of weld joint WJF-0-185. Welder is identified as 057795. ZPMC Quality Control (QC) is identified as Mr. Zhao jian hang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-3211-TC-U4c.

ZPMC personnel heat straightening OBG member identified as SP3058B. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Huang min was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

(HSR) HSR1 (B) 8813.

BAY- 7

SMAW Tack welding of weld joint SP3085-001-019,020. Welder is identified as 054456. ZPMC Quality Control (QC) is identified as Mr. Cui jun jie. The welding variables appeared to comply with the Applicable WPS: WPS-B- P-2112.

SMAW Tack welding of weld joint FB4100-001-003,004. Welder is identified as 250833. ZPMC Quality Control (QC) is identified as Mr. Cui jun jie. The welding variables appeared to comply with the Applicable WPS: WPS-B- P-2112.

Flux Cored Arc Welding (FCAW) of weld joint BP3054-001-019,020. Welder is identified as 217185. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint BP3054-001-015,016. Welder is identified as 204342. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint BP3054-001-011,012. Welder is identified as 062447. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

BAY- 8

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06237.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Bike Path (BK) weld Components. Total number of welds MT Tested:39 No's. The weld designations are review as follows:

1. BK004A6-055-68, 69, 74, 75, 84, 85, 95, 112, 113.
2. BK004A3-055-12~14, 27~29, 38, 47, 48, 53~55.
3. BK004A4-055-1~3, 16~18, 27~29, 42~44, 53~55, 68~70.

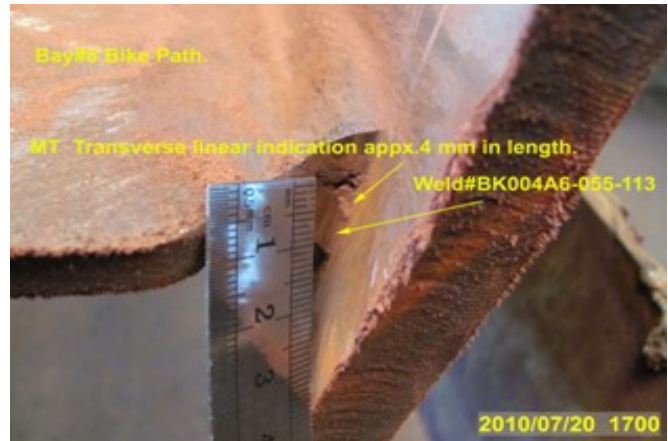
During Quality Assurance Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) BK - BK004A6-055, this QA Inspector observed One (1) Transverse surface Linear indication measuring approximately 4 mm in length. The weld is identified as: BK004A6-055-113. The weld is a fillet weld joining to Stringer plate to Stringer plate flange. The "Y" location is 0 from the nearest end of the weld. This indication has been ground out and MT re tested found to be acceptable. The indication is located within the area that has been

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC QC personnel are required to perform 100% MT inspection of these welds. Refer the attached photos for reference.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer